
**FINAL ENVIRONMENTAL IMPACT STATEMENT
AND
REVISED LAND AND RESOURCE
MANAGEMENT PLAN**

RECORD OF DECISION

Bighorn National Forest

September 2005

Lead Agency: U.S. Department of Agriculture
Forest Service
Rocky Mountain Region

Cooperating Agencies: State of Wyoming (State Agencies)
Lake DeSmet, Powder River, Sheridan County, Shoshone, South
Big Horn County, Washakie County Conservation Districts
Big Horn, Johnson, Sheridan and Washakie Counties

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Forest Supervisor
Bighorn National Forest

Located within Big Horn, Johnson, Sheridan, and Washakie Counties, Wyoming

This document presents the decision regarding the selection of a Revised Land and Resource Management Plan for the Bighorn National Forest. It summarizes the reasons for choosing the Selected Alternative as the basis for the Revised Forest Plan, which will be followed for the next 10 to 15 years. The long-term environmental consequences contained in the Final Environmental Impact Statement are considered in this decision.

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I. Summary of the Decision

A. Introduction

I have selected Alternative D-FEIS as described in the Final Environmental Impact Statement (FEIS) for the 2005 Bighorn National Forest Plan Revision. By selecting Alternative D-FEIS, I am approving the Revised Land and Resource Management Plan (Revised Plan) for the Bighorn National Forest (Bighorn NF). The Plan includes goals and objectives, standards and guidelines, management area direction, monitoring and evaluation direction, and recommendations for special area allocations for Congressional consideration. This decision is being made pursuant to the 1982 Planning Regulations¹, as allowed by the transition provision of the 2005 Planning Regulations, 36 Code of Federal Regulations (CFR) 219.14(f).

This Revised Forest Plan and FEIS are programmatic and represent a broad management strategy for the Bighorn NF that provides direction for sustaining healthy forest and rangeland conditions. Standards and guidelines ensure that resources are managed in a sustainable manner. Needed course corrections or adjustments will be identified through monitoring and evaluation, and amendments to the Revised Plan will be made as needed. This decision will remain in effect until the Plan is revised or amended.

While Plan decisions are generally programmatic, this Record of Decision also incorporates the following decisions:

- The leasing decision for specific lands [36 CFR 228.102(e)] that have been designated as administratively available for oil and gas leasing [36 CFR 228.102(d)].
- Designation of specific areas as Research Natural Areas.
- Changing the Hunt Mountain area summer² travel management from an area where off-route motorized travel is allowed to an area where summer motorized travel is restricted to designated routes. This is consistent with travel management rules on the rest of the Bighorn NF.
- Designation of an area north of US 16 near Powder River Pass as a non-motorized winter recreation area. The area is defined by a map on file at the Forest Supervisor's Office.

B. Elements of the Decision

The following is a brief summary of some of the key points of Alternative D-FEIS, which is the Revised Land and Resource Management Plan. This section is organized by the five revision topics, followed by a brief implementation discussion.

I. Roadless/Wilderness

Because of a relatively small population surrounding the Bighorn NF, rugged topography, and relatively low value forest products, much of the NF has remained in a 'roadless' condition. RARE I and II inventories were conducted in the 1970's, neither of which considered 4-wheel drive roads as roads. The Cloud Peak primitive area and other undeveloped areas became the

¹ Copies of the 1982 Planning Regulations are available at the Bighorn NF Supervisor's Office.

² Summer, in this sense, is not the season of June 21 through September 21. It refers to travel other than over-snow, which on the Bighorn is typically between about May 1 to November 15, depending on the elevation.

Cloud Peak Wilderness in 1984, and the Forest Plan made other ‘roaded’ and ‘roadless’ management allocations in 1985. A series of national administrative and rule-making policies on roadless area management were developed over the past six years.

The Forest Plan determines how much area of the Bighorn National Forest to allocate to roadless, back country, primitive recreation opportunities versus more developed, roaded, managed areas. In addition, whether or not to make additional wilderness system recommendations is also considered. This was the single most commented on topic during the Draft Plan comment period.

Table 1 is a summary display of the existing roadless and wilderness situation compared to the performance expected with the Revised Plan decision. The 191,898 acre Cloud Peak Wilderness may be expanded by Congress with the contiguous 33, 857 acres in Rock Creek that I am recommending for wilderness designation in this Record of Decision. Currently, there are about 494,790 acres that meet the Forest Service Handbook 1909.12 definition of roadless. Based upon past Forest Plan implementation and experience, the interdisciplinary team estimated that about 449,675 acres of the Bighorn NF will remain roadless in 2020 after 15 years of Plan implementation.

Table 1. Roadless and Recommended Wilderness – Before and After Revised Plan Decision

	Current Acres³	Revised Plan Acres	Change
Wilderness/Recommended Wilderness	191,898	225,755 (2005)	+33,857
Inventoried Roadless Area	494,790	449,675 (estimated remaining in 2020)	-45,115

The wilderness recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on wilderness designation.

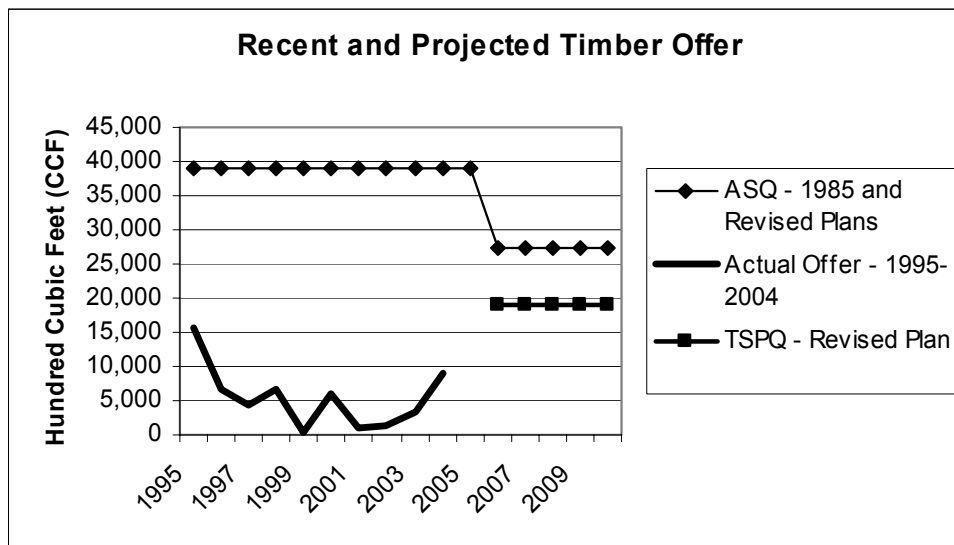
2. Timber Suitability and Management of Forested Lands

How the forested lands on the Bighorn NF should be managed has been an important issue since the Bighorn Forest Reserve was established in 1897. Over the five years of Plan revision, public input helped to define an integrated ‘healthy forest condition’, based upon the objectives for each management area. The ‘healthy forest condition’ is defined in terms of structural stage, scenery objectives, and recreation settings created, among other things, and it may be achieved by mechanical vegetation treatment, prescribed fire or wildland fire use.

³ The information in the tables, figures and maps in the Revised Forest Plan documents was generated from a variety of sources, including several different Geographical Information System (GIS) software platforms, tabular databases, and data from a variety of models used in planning analysis. The acreage figures from the various sources do not match exactly in all cases. However, when added, acres of the National Forest System lands (regardless of the source) are within acceptable margins of error for the precision of this decision.

The Revised Plan defines where mechanical vegetation treatments will, and will not, occur. Most mechanical vegetation treatment will take place near communities identified in the Community Wildfire Protection Plans, as defined in the Healthy Forests Restoration Act of 2003, and on lands identified as suitable for timber production. The 1985 Forest Plan identified 262,359 acres as suited for timber production, while the Revised Forest Plan identifies 185,277 acres as suited for timber production. The majority of this decrease is in the Piney Creek and Rock Creek watersheds, which were removed from the suited base because of low timber productivity and the high quality back-country recreation experiences provided. While mechanical vegetation treatments can still occur on the unsuited lands, other management objectives, such as wildlife habitat improvements and hazardous fuel reduction projects, will be the primary objective.

The following figure shows Revised Plan projected timber outputs compared to the 1985 Forest Plan projected and actual accomplishments. 36 CFR 219.27 requires that Forest Plans set an ‘Allowable Sale Quantity’, or ASQ, which is a ‘ceiling’ for the amount of timber that may be sold from land determined to be suitable for timber production over the planning period. While the 1985 Forest Plan projected an annual ASQ of 39,000 hundred cubic feet (CCF)⁴, the actual annual output has been much less, averaging 5,460 CCF (2.5 MMBF) between 1995 and 2004.



The Revised Plan projects timber harvest opportunities that are sustainable and achievable, and reflects a desired future condition that integrates forest conditions, public travel opportunities, and wildlife habitat needs. The Revised Plan annual ASQ is 27,183 CCF (11.2 MMBF). Because monitoring has shown that the ‘ceiling’ for timber output (ASQ) was not achieved during the first round of Forest Plans, the Revised Plan includes a Total Sale Program Quantity (TSPQ) of 18,931 CCF (7.3 MMBF). TSPQ is the Forest interdisciplinary team’s estimate of what the actual timber output will be considering past experience and anticipated budgets. TSPQ includes volume from all forested lands, including both suited and unsuited lands. Because of improved, up-to-date Plan direction, and an increased reliance on collaborative project design

⁴ 39,000 CCF is approximately 15.1 Million Board Feet (MMBF). The legal ASQ is defined in CCF, and MMBF is only an approximate conversion.

and implementation, I believe the TSPQ is a more realistic, achievable output level than was forecast under the 1985 Forest Plan.

I expect that the forested lands of the Bighorn NF will be moved toward the desired conditions during this planning period for a variety of reasons. The Revised Plan is a recent, comprehensive decision that incorporates public opinion with the best available science. The Revised Plan has an increased recognition of the importance of collaboratively identifying integrated vegetation treatments, wildlife habitat improvements, and travel management decisions. I expect to increase the amount of vegetation treatments to reduce vegetative fuel hazards as the Counties and the State Forester prepare Community Wildfire Protection Plans. I find that more realistic land allocations were made to the suited base in the Revised Plan compared to the 1985 Plan, in terms of productivity and ‘cost’ to other resources. Finally, I find the projected outputs of the Revised Plan are more realistic than the timber outputs projected in the 1985 Plan.

3. Wild and Scenic Rivers⁵ and Research Natural Areas

The Little Bighorn and Tongue Rivers were allocated to the Wild and Scenic river management area in the 1985 Forest Plan. Both of these rivers are again recommended for the Wild and Scenic river system in the Revised Plan⁶. The Wild and Scenic recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on designation of rivers as part of the National Wild and Scenic Rivers System.

Research Natural Areas (RNAs) are selected to provide a spectrum of relatively undisturbed areas representing important natural ecosystems and environments. They are managed for natural ecosystem functions and processes, so that as we manipulate and utilize other portions of the landscape, they can serve as sustainability ‘baselines’ or ‘control areas’. There are two RNAs in existence on the Bighorn, Bull Elk Park and Shell Canyon. The Revised Plan designates two additional RNAs, Mann Creek and Leigh Creek. These two areas best meet the RNA eligibility criteria and have very few conflicts with other resources and uses. The RNAs dropped from consideration between Draft and Final had conflicts between RNA objectives and existing land uses, and were given other, primitive management area allocations for the Final Plan. Both areas dropped, Lake McClain and Pheasant Creek, are expected to be eligible for RNA consideration at the next plan revision.

Both the Wild and Scenic River recommendations and RNA designations in the Revised Plan were based on careful analysis that objectively looked at the areas’ qualifications for their respective designations. Public input, including steering committee⁷ recommendations, was then used to help prioritize the areas for the final decision.

⁵ “Wild and Scenic Rivers” includes the designation “recreational”.

⁶ In 1989, the Bighorn NF completed an Environmental Impact Statement and Record of Decision that recommended portions of the Little Bighorn River as Wild or Scenic River. This recommendation was forwarded to Congress by the Secretary of Agriculture in 1990, but no action has been taken to date.

⁷ The steering committee is comprised of the Bighorn NF District Rangers and Forest Supervisor’s Staff; the State of Wyoming, through the Governor’s planning office and state agencies; and, county commissioners and conservation district board members from the four county Bighorn NF area.

Table 2 shows that 30,327 acres of the Bighorn NF were managed in Wild and Scenic management areas under the 1985 Plan, while the Revised Plan will reduce that by about 5000 acres. The primary difference is in the Tongue River west of Burgess Junction, which is allocated to the Scenery Management Area 4.2 because of a stronger compatibility with existing recreational uses. The number of RNAs on the Bighorn NF will increase from 2 to 4 under the Revised Plan, resulting in an acreage increase from 1,618 acres to almost 6,600 acres.

Table 2. Wild and Scenic Rivers and Research Natural Areas under 1985 Forest Plan and 2005 Revised Forest Plan

	1985 Plan	Revised Plan
Number of Wild/Scenic Rivers	2	2
Wild/Scenic River Miles Recommended	52.86	38.90
Wild/Scenic Management Area (acres)	30,327	25,277
Number of RNAs	2	4
RNA Management Area (acres)	1,618	6,574

4. Recreation and Travel Management

Most people who use the Bighorn NF interact with the Forest as recreation users. There are a large variety of recreation uses available on the Bighorn, and the Forest Plan decision indicates how, and where, to provide for various recreation settings and opportunities. The Revised Forest Plan decision provides for a variety of recreation uses, with the relative amounts and physical locations based upon public input and recreation demand, and the capabilities of the Bighorn NF to provide various uses.

Campsites near water are popular, but water quality impacts often result. A number of standards and guidelines were included in the Revised Plan that will give managers the programmatic tools to manage camping and motorized travel in riparian areas. This Record of Decision does not make decisions for specific locations (with the exception of the Hunt Mountain travel management and Powder River Pass winter travel decisions), but instead provides the context for subsequent site-specific planning.

Unrestricted, summer⁸ cross-country motorized travel ('C' areas on the travel map) was one of the most important issues considered during Forest Plan revision. When the Notice of Intent was published in 1999, 124,585 acres of C area existed on the Bighorn NF. Since the 1985 Plan decision there has been a boom in the number of off-road vehicles. Four-wheeled All Terrain Vehicles did not exist, for all practical purposes, in 1985, and the development of Sport Utility Vehicles increased the number of full-sized four-wheel drive recreationists. The large number of people using these vehicles created a situation that conflicts with some other users, and has the potential to damage resources, most notably water quality and wildlife. The revision decision requires that summer, motorized travel occur only on designated system routes, which is consistent with proposed national policy. However, we want to assure motorized recreationists of our intent to continue to provide opportunities on the Bighorn NF. For example, the recent

⁸ Summer, in this sense, is not the season of June 21 through September 21. It refers to travel other than over-snow, which on the Bighorn is typically between about May 1 to November 15, depending on the elevation.

Woodrock and Clear/Crazy project level decisions demonstrate the Forest's commitment to providing motorized recreation opportunities while protecting the resource.

Table 3 shows:

- That 124,585 acres of 'C area' on the Bighorn NF that existed in 1999 will not be open to unrestricted, summer cross-country motorized travel with the Plan decision⁹.
- Management area allocation decisions made in the Plan will result in an increase of about 80,000 acres of area *potentially* available for summer motorized recreation (based on motorized-compatible Recreation Opportunity Spectrum categories in the management area direction). The availability of summer motorized recreation in an area is dependent upon the existence of open system roads and trails. It is important to recognize that the Revised Plan and Record of Decision do not directly affect the Forest System roads and motorized trails, although subsequent site-specific plans implementing the management area objectives could result in changes to the travel system. The acres shown in the table indicate the number of acres of management areas that allow for motorized, or non-motorized, summer travel. It is anticipated that many of the areas where summer motorized travel could potentially be allowed may not have motorized routes constructed during this planning period.
- The amount of area open to snowmobiles will decrease from 795,612 acres to about 762,461 acres, which is primarily due to the Rock Creek Wilderness Recommendation and establishment of the two new RNAs. No snowmobiling is known to occur in these areas currently, so this will not be an actual loss to snowmobiling recreationists. The Revised Plan and Record of Decision have no effect on the miles of groomed snowmobile trails.

Table 3. Selected Recreation and Travel Management Performance Measurables under 1985 Forest Plan and 2005 Revised Forest Plan

	1985 Plan	Revised Plan
Area Open to Unrestricted Summer Cross-Country Motorized Travel (acres)	124,585	0
Summer Non-Motorized Travel Emphasis (acres)	459,337	380,341
Summer <i>Potential</i> Motorized Travel Emphasis (acres)	645,679	724,675
Area Open to Snowmobiling (acres)	795,612	762,461

The ability of the Bighorn NF to provide high quality, sustainable recreation opportunities will be improved by this decision. The Revised Plan represents a better account of both the amount and location of summer and winter recreation opportunities based on public and steering committee input received over the past five years. The Plan provides for public involvement in site-specific travel planning. Finally, the overall ability of the Forest to provide a balance of recreation opportunities while protecting the environment will improve over the long term

⁹ Unless specified otherwise at the site-specific, project level, summer motorized travel will still be allowed up to 300 feet off of designated routes for camping, firewood collection, or other uses, as long as there is no resource damage.

through the elimination of unrestricted, summer cross-country motorized travel throughout the Forest.

5. Biological and Habitat Diversity

For the Revised Plan, this topic has two primary elements:

- National Forests are legally required by the National Forest Management Act of 1976 to provide diverse plant and animal communities based on the capability of the land to meet multiple-use objectives. This includes adherence to the Endangered Species Act, and managing habitat to maintain viable populations of existing native and desired non-native populations as described in the 1982 planning regulations (36 CFR 219.19) (2000 edition).
- People *value* wildlife and providing for the habitats they live in. The Revised Plan reflects that high value by viewing biodiversity, and wildlife, fish, and plant populations, as management objectives and priorities.

The Forest Service primarily manages the habitat for species, while the State, through the Wyoming Game and Fish Department, has primary authority for managing wildlife populations. The Revised Plan was developed in close conjunction with the Wyoming Game & Fish Department.

The Revised Plan incorporates best science through professional reviews and use of peer-reviewed literature for conservation measures, and for effects analyses displayed in the FEIS. Species viability was incorporated into the Revised Plan in the goals and objectives, standards and guidelines, monitoring and evaluation, and through the development of alternatives considered in the FEIS. The development of the Revised Plan relied on a two-tiered process incorporating ecosystem and landscape maintenance considerations in addition to individual species' habitat needs. Ecosystems were assessed through large scale planning efforts examining processes and threats. Individual species were addressed by identifying emphasis species, including Management Indicator Species, from over 500 species considered. Conservation measures for the emphasis species, as identified in the species assessments, were included as direction in the Revised Plan. Threatened and Endangered species were addressed through this part of the process, and concurrence was obtained from the U.S. Fish and Wildlife Service on the Revised Plan.

Some of the proactive measures in the Revised Plan for biological and habitat diversity and species viability are:

- Strategies to maintain and improve ecosystem process and emphasize species habitat, including watershed function and natural disturbance processes and reducing threats from non-native species.
- Provision for elk security habitat that incorporates multiple species' needs involving road density and forested cover habitat elements.
- Identification of additional Research Natural Areas (Management Prescription 2.2) and management prescriptions developed specifically for plant, fish, and wildlife habitat (Management Prescriptions 3.5, 5.4, and 5.41).

- Provision for a conservative level of additional road construction through the balance of management area categories 1-3 versus 4-8 that will help constrain threats associated with habitat loss and non-native species impacts in the future. In addition, the risks of habitat loss from unmanaged recreation were reduced by removing the provision in the 1985 Plan that allowed unrestricted, summer cross country motorized travel.
- Improved management direction for riparian areas, including a 100' streamside management zone, and a 300' habitat zone, with additional fisheries and watershed guidelines not included in the 1985 Plan.
- Improved management direction for old growth conifer habitats, effectively doubling the amount of old growth managed for over the 1985 Plan. Direction for maintenance of aspen habitats was also improved.
- Identification of Desired Future Conditions for each Geographic Area (Plan Chapter 3) that protect unique features while setting a course for improvement of habitat diversity that will provide resiliency from large-scale natural disturbances that are likely to occur.

One of the most important diversity provisions in the Revised Plan is elk security habitat. Originally designed to maintain or improve hunting opportunities on the Bighorn NF, it became more important to overall habitat objectives for many species because it provides core forested habitat with low road densities. The elk security guideline had its roots in the 1985 Plan direction for hiding cover. After a few years of monitoring, it became evident that hiding cover next to roads provided little 'security'. As described in more detail in the Final EIS, a more robust and spatially explicit elk security habitat model was developed for the Revised Plan, capturing the lessons learned from 20 years of plan implementation, as detailed in the project record. One of the most important features about elk security habitat is that it can be moved on the landscape over time, as forests grow into or out of cover, or as roads are open or closed. The other important aspect is that it provides benefits for species that require low road densities and large contiguous blocks of forested cover.

The 1985 Forest Plan was based on the science of the time, which promoted increased forage to edge habitat conditions. More recent studies have shown that in most forest ecosystems, it is more important to replicate the size and shape of natural disturbances, so that habitats more closely replicate those that native plants and animals have adapted to over time. The Big Horn Mountains are characterized by forests that primarily regenerated through infrequent, large scale fires, which created large, contiguous blocks of habitat. Improved direction in the Revised Plan for large scale planning and disturbance events will provide significant benefits for biological and habitat diversity. In conjunction with the use of larger management areas, there are several strategies for collaborative, landscape-scale planning that will provide a more integrated future landscape. Where needed, small scale treatments are still provided for in the Revised Plan, such as around wildland-urban interface areas.

6. Implementation for Land Health and Sustainable Communities

I expect that one of the most important aspects of the Revised Plan is the adaptive, collaborative framework for continued dialog between Forest personnel, citizens and local governments. This collaborative dialog will prioritize and inform Plan implementation.

One of the lessons learned in the first round of Forest Planning is that Land Management Plans for a 1.1 million acre National Forest are too complex to craft an exact implementation blueprint for even a ten to fifteen year future. The Revised Plan sets forth a broad vision, defined by the goals, objectives and strategies, that will guide project implementation. And, through mechanisms such as the twice yearly public monitoring meetings and project-specific collaboration, the Revised Plan anticipates periodic course corrections. The Revised Plan commits the Bighorn NF to collaboration on project implementation, monitoring project success at achieving long-term forest goals, and making Plan amendments as needed.

The Revised Plan provides many tools that will allow integrated consideration of all the resources on the Forest and the benefits they can provide for our communities:

- Objective 4c promotes working with people to implement the Revised Plan. The multi-party collaborative input strategy, suggested by the revision steering committee, will help integrate forest vegetation treatments, travel planning, and wildlife habitat objectives in future projects.
- Goal 1 of the Revised Plan sets expectations for healthy watersheds, and wildlife and human habitats. Objective 1c sets forth expectations for healthy forests and rangelands, sets priorities for treatments, and provides a framework for defining desired conditions. Because of the complexities of defining ‘healthy forest and rangeland conditions’, the broad, programmatic desired conditions described in the Revised Forest Plan will be refined and adapted to the landscape during site-specific, collaborative, planning.
- Goal 2 ties current and future generations’ benefits to the continued long-term health of the land, by setting milestones for livestock grazing, timber, travel, recreation, and other resource outputs. It provides suggestions for specific tools, such as considering stewardship contracting as a priority to achieve community and forest health objectives. Goal 2 also strives to incorporate short duration roads into site-specific planning.

I find that this adaptive, collaborative framework will help assure that social, economic, biological and physical resources will be sustained for current and future generations.

II. Rationale for the Selection of Alternative D FEIS

I selected Alternative D-FEIS because it provides the best mix of social, economic, and ecological aspects to meet the Forest Service sustainability mandate. I find that alternative D-FEIS provides the maximum level of net public benefits based on the following factors:

A. Public Input

The public has made their wishes known concerning the management of the Bighorn NF through a variety of methods over the years. People have a deep sense of attachment to ‘the mountain’ and many are extremely knowledgeable on the uses and resources. Public input helped me to determine what is, and what is not, working under the 1985 Forest Plan; and, helped me understand the relationships between various user groups and the resources on the Bighorn NF. I was able to consider the following public input and information in reaching my decision:

- Continuous involvement of people in project level planning.
- 22 Forest Plan public meetings and 3 field trips.

- A formal, scientific mail survey of randomly selected households in the four county area conducted by the University of Wyoming¹⁰.
- Hundreds of written letters and thousands of e-mail comments. Most of these written comments were provided during the formal scoping and Draft Plan comment periods, but some arrived throughout the process.
- Hundreds of formal and informal personal conversations with Forest staff.

Many people have asked how this input on their public land is considered. Here are a few of the things that provide context and ‘weight’ for me:

- Everyone in the United States has the opportunity to express their opinions as to how they would like to see their public lands managed. I value every comment that was submitted. I believe that we were able to integrate the national and local response we received.
- Steering committee members (Wyoming State Agency personnel, and county commissioners and conservation district board members from the four county Bighorn NF area) have a great understanding of what is in the Revised Plan, and what the estimated effects will be. They participated in over 40 meetings over the five year revision process. They have a great understanding not only of what is in the Revised Plan, but they understand how the Revised Plan came together as it did. I especially valued the diversity of opinion on the steering committee.
- Some people have a direct economic tie to the Bighorn National Forest, including resort owners, timber purchasers, livestock grazing permittees, businesses in local communities that rely on users of the Forest, and others. I understand that they, and their families’ livelihood, can be affected by Forest Plan decisions.
- The people in the four-county area who live in the shadow of “the mountain” are the primary users of the Bighorn NF. They recreate during all seasons, and the National Forest forms a backdrop, physically and figuratively, that provides the context for the ‘custom and culture’ of the communities.
- The Bighorn National Forest contains many cultural properties, plants and forest products that help contribute to the culture of Native American people. The tribes have been engaged primarily through the Medicine Wheel consultation meetings.

B. Revision of an Existing Plan

One of the initial premises of the Bighorn Plan revision effort was recognition of the century of National Forest System land management that preceded my decision. I respect the thousands of previous resource decisions, made by resource professionals with input from citizens. This past management has resulted in the Bighorn National Forest we all enjoy today. One of the leading sentiments I heard from a wide cross-section of people is that, in general, they like the way things are today. With that thought in mind, I wanted to continue the direction and resource allocations that monitoring and evaluation have shown to be working well. I find that Alternative D-FEIS best continues the current management trajectory.

¹⁰ A report on the survey is on the Bighorn NF web site and at the Forest Supervisor’s Office, Sheridan.

C. Resource Capability/Productivity

This was an important consideration in my decision, and I thank the many people who shared their knowledge of the Bighorn NF acquired over the years; indeed, in some cases, their lifetimes. Since resource capability is site specific by nature, the majority of this input was used to make management area allocation decisions, including:

- Productive timber areas that were harvested in the past were largely allocated to the management areas, such as 5.11, 5.12 and 5.13, that include lands suited for timber production. It is no coincidence that the areas that have been roaded and logged in the past 100 years of National Forest System management have the highest timber productivity, are on relatively gentle terrain, and, have soil and other conditions that provide favorable regeneration conditions. These areas include, among others, Canyon Creek, Cold Springs, Pole Creek, the southern portion of Clear Creek, Woodrock, Dayton Gulch, Sheep Creek, and Spring Draw.
- Conversely, areas that provide solitude and high quality backcountry experiences were largely allocated to continue that emphasis. Medicine Lodge Canyon, Little Bighorn and Dry Fork Rivers, the lower portions of the Tongue River, Devil's Canyon, Piney Creek and Rock Creek are examples.
- My decision to recommend Rock Creek as wilderness is because of the high quality backcountry experience afforded, along with the degree and extent of public comments in support of this recommendation. This addition to the Cloud Peak Wilderness would improve the elevational and plant habitat diversity provided by the existing wilderness area. Finally, the area has relatively low timber productivity and there is no existing motorized travel in the area.
- The Revised Plan allocates the Piney Creek watershed to a backcountry recreation opportunity emphasis. This is a change from the 1985 Plan, which allocated a substantial portion of the area to the wood fiber production management area. This decision reflects a continuation of the existing uses of the area, and, like the Rock Creek recommendation, was primarily based upon the high quality backcountry recreation opportunities available and public comment. Piney Creek also has relatively low value timber resources and road costs to access the area would be high.

D. Monitoring of 1985 Forest Plan

The Bighorn has performed annual Forest Plan monitoring since the Plan went into effect in 1985, and the knowledge learned from nearly 20 years of Plan implementation was used in reaching my decision:

- I want to set reasonable and deliverable expectations for sawtimber outputs. On the Bighorn NF, only 31% of the 1985 Plan Allowable Sale Quantity (ASQ) was offered through fiscal year 2004. I find that the selected alternative provides a reasonable and achievable estimate of timber output: 18,931 CCF (7.3 MMBF) – annual Total Sale Program Quantity.
- One of the reasons for not selecting Alternative E is that many of the areas identified as suited for timber production in that alternative are at high risk for not providing

economically feasible timber sales due to high road costs, low timber productivity, and public need/concern for backcountry recreation opportunities.

- The Revised Plan allows for, and sets expectations for, wood product utilization on other than suited lands. As described below, these opportunities will be identified through collaborative processes, and will provide wood products consistent with the management area objectives.
- While many people asked for more specificity and assurances in terms of project schedules, outputs and decisions, one of the chief lessons from the first round of Forest Planning is that Forest Plans are strategic in nature, and are not good predictors of future project-level implementation. The Forest has implementation schedules for various activities, which are available on request. The Forest will be accountable through the twice yearly monitoring meetings, where state and local governments and the public can learn how the Bighorn is, or is not, achieving the Plan objectives.
- The Forest Plan anticipates the changes to social, economic or resource conditions that *are* going to occur during this Planning period by incorporating ‘adaptive management’. The Plan monitoring chapter envisions twice yearly public monitoring and evaluation meetings. I expect that Forest Plan effectiveness, indicated primarily by project-level implementation successes or failures, will be the primary topic of these public monitoring and evaluation meetings. The outcomes of these meetings will indicate the need for amendment or revision of the Plan, which will be more effective at addressing changed conditions than will any amount of future ‘what-if’ analysis done today.

E. A Partnership with Communities

This Plan provides for continued collaboration and integrated planning with local communities. This aspect is of key importance to me in recognizing and planning for the social and economic needs of our local communities. While Plan alternatives vary little in this aspect, I will point out some key Plan direction that will help to recognize and provide for the ‘custom and culture’ of the local Bighorn communities:

- Livestock Grazing – I recognize that the livestock grazing industry was one of the primary European settlement agents in North Central Wyoming and that it continues to be an important part of the local communities’ custom and culture. The Revised Plan livestock grazing strategy was important to communities in setting forage allocation aspirations, but not at the expense of the long-term productivity of the resource¹¹. The grazing direction and monitoring is largely a continuation of the current procedures, which have adapted over time to serve the resource, the permittees, and the public. I find that the selected alternative provides for a continuation of adaptive management for livestock grazing implementation.
- Healthy Forests and Community Wildfire Protection Plans (CWPP) – The plan includes a strategy that requires coordination with CWPP. Even management areas with limitations

¹¹ Livestock grazing strategy 2c: “Provide forage for livestock while managing to meet desired conditions. Provide forage for livestock at a level that strives to maintain or exceed the year 2004 permitted stocking level of 113,800 Animal Unit Months (AUMs), while recognizing that stocking levels may be adjusted through the implementation of allotment management plans (AMPs) and administration of grazing permits.”

on mechanical vegetation treatment, such as the 1.31, 1.32, and 1.33 management areas, allow for treatments near high value areas. High value areas will be identified during the collaborative process considering the CWPP's identified wildland-urban interface areas.

- Continuation of the community interaction and input provided by the revision steering committee – I expect that one of the most important outputs of the Revised Plan is the identification of the need for continued local community/Forest interaction, as specified in the Chapter 4 direction for twice yearly 'Plan monitoring meetings'. The steering committee has learned an incredible amount about Bighorn National Forest management, and the continuation of that 'learning team' into the implementation, monitoring and evaluation, and amendment phase will be a tremendous value to the communities and the Forest. In addition, Objective 4c, Strategy 7, multi-party collaborative input, holds the promise for continued State and local government involvement in Plan implementation at the very earliest stages of project development.
- Improving or maintaining water quality – The University of Wyoming survey of residents of the counties with Bighorn NF lands found that the highest ranked public benefit from the Bighorn NF was "provide and protect sources of water for human use". The value of water to local residents was repeatedly reinforced by the steering committee members. While all of the Revised Plan alternatives would meet the requirements of the Clean Water Act, I find that Alternative D-FEIS provides the best balance between resource utilization and improvement or maintenance of water quality.

F. Medicine Wheel

The Medicine Wheel area has been important to people for thousands of years. It continues to be a living tradition for many Native American people. Signed in 1996, the Historic Preservation Plan (HPP) sets forth management direction for the HPP area, but more importantly, defines a consultation process where the signatories to the HPP discuss implementation. The HPP also establishes a framework for government to government relations between the Bighorn NF and tribes. The Revised Plan adopts the HPP, which offers a continuation of the management direction that has been successful for nearly a decade.

G. Timber Vegetation Management Program

I find that the selected alternative maximizes net public benefits in terms of the forested vegetation management program in spite of the fact that the Bighorn NF spends more on the timber sale program than it receives in revenue. I find that the selected alternative maximizes net public benefits because:

- This is a financial deficit, not an economic deficit, and the timber program provides long term public benefits. Among the non-quantified economic benefits society receives because of the Bighorn timber program is support of manufacturing sector jobs in communities and a wood supply that helps support the continued existence of local sawmills. The timber supply/demand studies conducted show that demand in the local region exceeds the anticipated supply under any alternative.
- Enhanced wildlife habitat, hazardous fuel reduction, and community wildfire protection are among the benefits of the timber program that are not accounted for in the financial

ledger. Mechanical treatment of forest vegetation is one tool in maintaining healthy forests and protecting communities.

- The selected alternative will improve the financial efficiency of the timber program on the Bighorn because some of the highest cost/lowest benefit areas have been eliminated in the 2005 suited timber base through management area allocations. For example, Piney Creek and Rock Creek were dropped from the suited timber base. Similarly, many of the geographic locations on the Forest of lowest cost/highest benefit remain in the suited timber base.
- The selected alternative was ‘framed’, from a timber output standpoint, by the other alternatives. I was able to consider alternatives with lower (B and C) and higher (A and E) timber outputs in determining which program level maximizes net public benefits. The communities section of the FEIS summarizes the social and economic considerations of each alternative.
- Alternative forest vegetation treatment tools, such as prescribed fire, will be conducted under the selected alternative. I find that public net benefit is maximized by utilizing multiple treatment tools because of the flexibility it affords. Prescribed fire in subalpine forests can be used in remote areas to replicate historic ecosystem processes, but because of fire’s large size and intensity in this ecosystem, it is not a tool that can be used near high value areas. Mechanical vegetation treatment is more appropriate near high value areas such as the wildland-urban interface, for some wildlife habitat objectives, and in most scenic areas.

I used public input, resource capability/productivity, and knowledge gained from the past 100 years of Bighorn NF management to weigh the social, economic, and resource conditions and effects to find that the timber program specified contributes to the maximum net public benefit that is achieved by Alternative D-FEIS.

III. Components of the Decision

There are six fundamental components of the decision made in the plan revision. The following sections discuss these components of the decision in detail.

A. Establishment of Forestwide Multiple-Use Goals and Objectives, 36 CFR 219.11(b)

The goals and objectives are listed and described in Chapter 1 of the Revised Plan. They are based on the four goals identified in the 2000 Forest Service Government Performance Results Act (GPRA) Strategic Plan.

Part of my rationale for selecting Alternative D-FEIS is because of how it will achieve the goals and objectives. Although the goals and objectives apply to all the alternatives, each alternative achieves them in different ways and to different degrees, depending on the emphasis. I find that Alternative D-FEIS will best achieve the goals and objectives by providing for the variety of uses people told me were important, and by best recognizing the past management history and capabilities of the Bighorn National Forest.

B. Establishment of Forestwide Standards and Guidelines, 36 CFR 219.13 to 219.27

Forestwide management requirements (standards and guidelines) do not vary by alternative, because they were considered the ‘baseline’ design criteria that will ensure resources are managed in a sustainable manner. They were developed based on scientific and public input. The standards and guidelines were carefully crafted to strike a balance between providing assurances that management direction will be followed, while allowing managers flexibility in the case of site-specific exceptional circumstances. I find that the forestwide standards and guidelines were developed in an interdisciplinary manner, and will provide for achievement of the Revised Plan’s goals and objectives.

C. Establishment of Management Area Direction, 36 CFR 219.11(c)

Twenty-two management area prescriptions, which include area specific standards and guidelines, were used in the Revised Plan. The management area allocations were the primary difference between the six alternatives considered in detail. Chapter 2 of the Revised Plan has a complete description of the management area prescriptions. Based upon public and steering committee input, there were many important changes in the management area allocations between alternative D-DEIS and the Revised Plan.

I selected D-FEIS for the Revised Plan because the management area allocations:

- best recognize the past 100 years of management. This includes continuation of current management where objectives were being met, and some management changes, where the public and/or resource conditions indicated a change was warranted. The Revised Plan, informed by the best available science, is largely a continuation of the present management direction, because I heard from a wide cross-section of people that, in general, they like the way things are today on the Bighorn NF.
- best recognize area-specific resource productivity and capability, as discussed above.
- best provide for a mix of motorized and non-motorized recreation opportunities that people want and protects the environment.
- best provide for the mix of habitat management opportunities that will sustain viable populations and human uses of wildlife. The Revised Plan management area allocations provide for a diversity of habitat management tools and desired habitat conditions.

D. Determination of Lands Suitable for Timber Harvest (36 CFR 219.14); Determination of Lands Suitable for Grazing and Browsing (36 CFR 219.20); Identification of Lands Available for Oil and Gas Leasing, Including Stipulations (36 CFR 228.102(c) and (d)); and, Provision for a Broad Spectrum of Outdoor Recreation Opportunities (36 CFR 219.21)

Timber Suitability: This has been an important public issue on the Bighorn NF since the 1985 Plan was signed. One of the areas of greatest plan implementation controversy was over timber harvest and associated road construction in roadless areas. The major reason for the decrease in suited acres from 262,062 acres in the 1985 Plan to 185,277 acres in the Revised Plan is the designation of the Piney Creek and Rock Creek watersheds as not suitable for timber production.

Range Suitability: At the forestwide scale of analysis, 134,615 acres were determined to be suitable for cattle grazing, and 185,235 acres were determined to be suitable for sheep grazing. These determinations do not directly affect the amount of livestock grazing that occurs on the Bighorn NF. Permitted and authorized grazing levels will be determined by implementing Revised Plan direction through Allotment Management Plans and Annual Operating Plans. The Revised Plan direction accommodates and provides for continued livestock grazing, while maintaining healthy plant communities and wildlife populations.

Availability for Oil and Gas Leasing: This is the first oil and gas leasing decision made on the Bighorn NF. Approximately 84,833 acres of National Forest System land is determined to be available for oil and gas leasing with certain lease stipulations as specified in Revised Plan Appendix B. This area was determined to have low potential for oil and gas development, while the remainder of the forest is considered to have no recognizable potential for oil and gas development in the next fifteen year period. There will be 19,709 acres available with standard stipulations; 43,702 acres with no surface occupancy; 11,997 acres with timing limitations; and, 9,426 acres with controlled surface use. These stipulations are based upon multiple-use direction in the Revised Plan.

Outdoor Recreation Opportunities: This was one of the major revision topics, and is described in more detail earlier in this record of decision.

E. Establishment of Requirements for Monitoring and Evaluating the Implementation of the Revised Plan, 36 CFR 219.11(d)

The monitoring chapter of the Revised Plan does not vary by alternative. One of the chief lessons learned in implementing the first round of Forest Plans was that resources, people and technology change over time, and long-term land management plans must be adaptive to account for those changes. The National Forest Management Act provides for this adaptability through use of amendments to Forest Plans as needed, and for revisions every ten to fifteen years. The monitoring and evaluation chapter will be the primary mechanism used in determining if, and when, plan amendments or revisions are needed. It will also help us validate whether we are moving toward the desired goals, objectives, and expected outcomes.

F. Recommendations for Additions to the Wilderness Preservation System and Wild and Scenic River System, 36 CFR 219.17(a) and 219.18

I am recommending to Congress that the 33,587 acre Rock Creek area be added to the Cloud Peak Wilderness. As discussed previously, I make this recommendation because of the high quality backcountry experience available, the degree and extent of public comments in support of this recommendation, and because of the low timber productivity. In addition, the Rock Creek recommendation provides a wonderful addition to the elevational and plant habitat diversity provided by the existing Cloud Peak Wilderness.

I am also recommending that Congress designate portions of the Little Bighorn and Tongue Rivers to the Wild and Scenic River system. The Little Bighorn was nominated to Congress by the Secretary of Agriculture in 1990. Both of these recommendations are based on the high quality Wild and Scenic River experience these rivers offer.

The 2005 roadless inventory was completed as part of the revision analysis process. This inventory will be used for all Revised Forest Plan implementation activities, and replaces all

previous roadless inventories. A description of the inventory process is located in Chapter 3 of the FEIS and FEIS Appendix C. The management area prescriptions describe the desired future conditions and what types of projects may occur in the inventoried roadless areas.

IV. Changes Between Draft Plan and Final Plan

The Draft Plan was based upon alternative D as displayed in the Draft EIS. Based upon public comments, steering committee input, and analysis improvements, a number of changes were made to the preferred alternative for this final decision. The Draft Plan alternative D is labeled “D-DEIS” in the Final EIS, and the revised, selected, alternative is labeled as “D-FEIS”. While the FEIS contains a complete list of changes, some of the most important are listed below.

A. Management Areas

The public and steering committee provided a diverse range of input that was used to improve the management area allocations in D-DEIS. Some of the most important changes include:

- the addition of Rock Creek as a recommended wilderness.
- the recommendation of Tongue River to the wild/scenic river system.
- use of 5.4 and 5.5 management areas, which combine suited timber allocations with wildlife and recreation objectives.
- more accurate mapping of deer and elk winter range.
- additional management area category 1 and 5 allocations.
- deletion of two of the four Research Natural Areas that were recommended in the Draft Plan.

B. Strategies, Standards and Guidelines

A number of these were changed based on public, steering committee, and Regional Office specialist advice. A complete list of these changes is available in the project record.

C. Monitoring Chapter

Chapter 4 of the Plan, Monitoring and Evaluation, was improved. Specific monitoring items were revised to be more responsive to the monitoring issue, and to be cost-effective and efficient. These changes are summarized in the project record. One of the most important changes was in adding the twice yearly public monitoring meetings. This will continue the relationship built over the revision period with the steering committee, plus be an effective evaluation tool in verifying that the Revised Plan objectives are, or are not, being achieved.

V. Changes Between Draft EIS and Final EIS

This section lists some of the most important changes made to the analysis of environmental consequences. Changes to the EIS between Draft and Final resulted from public comments on the analysis procedures themselves, because of the development of D-FEIS, and because of internal reviews of the original analysis.

A. Revised Biological Assessment (BA)

The management direction (Chapter 1 of Revised Plan) applicable to the Canada lynx was changed between Draft and Final to be consistent with the current status of progress on the Northern Rockies Lynx Amendment, and with the recently updated Lynx Conservation Agreement (USDA Forest Service 2005). Consultation with the USFWS resulted in additional analysis information for the pallid sturgeon, gray wolf, grizzly bear, and Ute's ladies-tresses.

B. Recreation Use Data

The FEIS used the National Visitor Use Monitoring Study information on visitor use, satisfaction, and primary activities. This statistically valid, scientifically collected data was not available for the DEIS. It provided insights into our visitors, their satisfactions and expectations, and was used for the economic analysis.

C. Modified Timber Analysis and Changes in Modeled Outputs

Woodstock© and Stanley© are the models used to schedule timber harvest and determine ASQ for each alternative. Woodstock is a linear programming model, and Stanley further refines the Woodstock outputs using a spatially explicit Geographic Information System (GIS) analysis. For the DEIS, only the Woodstock results were displayed, as the Stanley results were not available at the time of publication.

Based on public comments and questions about the Woodstock/Stamley© model and the methodology used in applying some of the constraints, the model was reviewed by Regional and Washington Office analysts. Their critique was used to improve the model built for the FEIS. Detailed descriptions of modeling changes are described in FEIS Appendix B.

The timber suitability analysis was redone for the FEIS to more closely conform to the 1991 court approved suitability key. Combined with the Management Area changes made between draft and final, this resulted in a slight increase in suited acres between D-DEIS and D-FEIS, 184,606 acres to 185,277 acres. Finally, there was a change in the definition of Total Sale Program Quantity (TSPQ) between the Draft and Final EIS. The TSPQ in the Draft EIS was not constrained by projected budgets, as it was for the Final.

D. Economics and Communities

In response to comments on the DEIS, the FEIS Chapter 3 Communities section has been significantly improved. Many comments were received on levels of timber outputs, timber industry viability, and related community effects. In response to these comments, more extensive and updated data on the local timber industry were obtained, a more complete timber supply from all sources was estimated, and timber-related employment and income effects were revised.

E. Updated Oil and Gas Leasing Stipulations

Changes were made to this section between the DEIS and FEIS. Forest Service Regional Office Oil and Gas specialists determined that the Draft Plan Oil and Gas Leasing stipulations and analysis were not in compliance with 36 CFR 228.102. The changes between draft and final include addition of resource stipulations and drafting a map. The area mapped was the approximately 85,000 acre Basin Margin Subthrust play, as identified in the "Brief Review of the Oil and Gas Potential on the Bighorn National Forest, Wyoming" (Crockett, 2004). If future

leasing interest is shown in other areas of the forest, appropriate leasing analysis will be conducted at that time. See FEIS Chapter 3 Oil and Gas; and, Plan Appendix B Oil and Gas Stipulations.

VI. The Planning Process and Public Involvement

A. Public Meetings

The Notice of Intent to revise the Plan was published on November 10, 1999. Public scoping meetings were held in six communities in north central Wyoming between November 2000 and January 2001. As with all the public meetings throughout the process, they were co-hosted by the cooperating agency conservation districts and counties. Public comments were used to refine the issues and develop initial alternatives.

Public field trips were held in the summers of 2001 and 2003. In January 2003, public meetings were held in the six communities to gather comments on preliminary alternatives.

The Draft Plan and Draft EIS comment period of July through September, 2004, included two rounds of meetings. The first round was held in the six communities in July, with the objective of introducing the documents, and providing tips on how to review the documents and provide comments. The second round included four meetings, one in each of the four Bighorn NF counties, where attendees were allowed three minutes to provide a statement. Written comments were also accepted. Substantive comments were used to refine the Draft Plan and Draft EIS. Approximately 19,000 cards and letters were received during the official 90-day comment period. In addition, Bighorn NF personnel met with representatives from several organizations who offered specific comments. See FEIS Appendix A for more information on public involvement throughout the entire planning process.

B. Cooperating Agencies and Consultation – The Steering Committee

Prior to the public scoping meetings in November 2000, the Bighorn NF revision team met with representatives from the State of Wyoming, and the county commissioners and conservation districts from the four-county Bighorn area. The meeting resulted in development of the revision ‘steering committee’. The State and local governments signed a Memorandum of Understanding with the Forest that identified their roles and responsibilities as cooperating agencies. The steering committee met approximately 40 times to discuss specific direction and analysis in the Plan and EIS, and made recommendations for changes. The resource professionals in the Game and Fish Department, State Forestry and State Trails worked closely with the Forest interdisciplinary team in suggesting changes to the Draft Plan.

C. Tribal Consultation

The Forest consulted with Indian tribal governments through the revision process. Goals, objectives, standards and guidelines ensure consultation with tribes during plan implementation and protection of traditions and resources used by tribes. The Medicine Wheel area was an important topic of consultation.

VII. Alternatives Considered

Each alternative was designed around a theme for management that achieves the purpose and need for revision and responds to the revision topics. All alternatives include the concepts of

multiple-use, sustained yield, biological diversity, and ecosystem management while meeting the requirements of 36 CFR 219.27, as well as all other legal and regulatory requirements. All the alternatives share a set of goals/objectives/strategies and standards/guidelines that ensure protection of forest resources and compliance with applicable laws.

A. Description of Alternatives Considered in Detail

In making my decision, I considered the six alternatives summarized below, as well as a No Action alternative. They are described in detail in Chapter 2 of the FEIS.

No Action – 1985 Forest Plan as Currently Implemented

The No Action Alternative reflects current forestwide direction. It meets the NEPA requirement (36CFR 219.12(f)(7)) that a No Action Alternative be considered.

‘No Action’ means that current management allocations, activities, and management direction found in the 1985 Forest Plan would continue. The No Action alternative estimates approximately the current level of outputs and types of Forest Service management activities. This alternative was not considered for selection, for the reasons stated in Chapter 2 of the FEIS; however, it served as a baseline for comparison for the other six “action” alternatives.

Alternative A

In this alternative, the boundaries of 1985 Forest Plan management areas, as amended, remain the same. However, all other direction has been updated: the goals and objectives, the standards and guidelines, the management area direction, and the monitoring and evaluation chapter. This alternative compares the desirability of retaining the smaller management areas used in the 1985 Plan with the larger management areas proposed under Alternatives B, C, D-DEIS, D-FEIS, and E. The program focus is similar to the 1985 Forest Plan since the current management area emphases are retained.

Alternative B

Alternative B was developed in response to public comment that the vegetation resources need active management to achieve biological and habitat diversity, while still providing a sustainable output of other forest uses. Relative to the other alternatives, this alternative places a higher priority on physical and biological resources than other uses. This alternative explores the pros and cons of trying to improve plant and animal habitats with less road construction.

Alternative C

Alternative C was developed in response to public comment that the undeveloped land on the Forest should remain undeveloped to provide for nonmotorized opportunities, natural processes, minimal recreational facilities, and undeveloped recreational settings. Alternative C emphasizes natural processes to sustain ecological systems, including fish and wildlife habitat. Lands identified for timber production are in a general forest management area (5.11), rather than in a timber production management area (5.13). The 5.11 areas are on land where timber harvest has occurred in the past, and the road system is in place. This alternative has the highest amount of National Forest System land recommended for Congressional designation as either Wild and Scenic River or Wilderness.

Alternative D DEIS

Alternative D-DEIS was developed by reviewing past forest plan monitoring reports and adjusting management area boundaries and forest plan direction to reflect the changes in human uses, technologies, and scientific information that has occurred since the mid-1980s. The management projected under this alternative is similar to the current management direction.

Alternative D FEIS (Selected Alternative – Revised Plan)

Alternative D-FEIS is largely a continuation of the same emphasis as Alternative D-DEIS. Alternative D-FEIS was developed based on comments from the public and cooperating agencies on the Draft Plan and Draft EIS. About 19,000 comments were used to make improvements to the Draft Plan. The D-DEIS management area map was used as the base ‘template’ to which improvements were made. Because of the standards, guidelines, and management area allocations, I find that all practical means to avoid or minimize environmental harm have been adopted in this alternative. A summary of this alternative and the changes made from D-DEIS appear earlier in this document, and are more completely described in Chapter 2 of the FEIS.

Alternative E

Alternative E was developed in response to public comment to assure a substantive timber output. Under this alternative, nearly all of the tentatively suited timber areas are made suited for timber production. This alternative maximizes timber harvest opportunities.

B. Alternatives Considered but Eliminated From Detailed Study

Twenty three alternatives were considered by the Forest Interdisciplinary (ID) team and eliminated from detailed study during the planning process. The alternatives are discussed in Chapter 2 of the FEIS, including the reasons why they were eliminated from detailed study. The Forest ID team considered the ideas represented by these alternatives to help shape the six alternatives considered in detail.

VIII. Identification of the Environmentally Preferred Alternative

National Environmental Policy Act (NEPA) regulations require agencies to specify the alternative or alternatives which were considered to be environmentally preferable [40 CFR 1505.2(b)]. Forest Service policy (FSH 1909.15, Section 05) defines environmentally preferable as:

“An alternative that best meets the goals of Section 101 of NEPA. ... Ordinarily this is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources.”

I find, based upon the laws and regulations guiding National Forest System management, that Alternative D-FEIS is the environmentally preferred alternative. Although Alternative C would allow the fewest mechanical ground-disturbing activities and was the US Environmental Protection Agency-identified environmentally preferred alternative, it does not address the six goals of NEPA as well as D-FEIS does. I base my finding on the following comparison showing how the alternatives address the goals of Section 101 of NEPA:

A. Fulfill the responsibilities of each generation as trustees of the environment for succeeding generations

I find D-FEIS best fulfills this goal based on my review of the past 100 years of Bighorn NF management, which D-FEIS recognizes and offers a continuation of. The higher levels of resource utilization anticipated in D-FEIS compared to alternatives B and C provides the Bighorn NF's sustainable share of products and uses demanded by the public, while having a higher probability of maintenance of current outputs than do alternatives A and E.

B. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings

"Please maintain the Bighorn NF as it is today" was a majority opinion of the people my staff and I have visited with during the nearly five year revision process. Alternative D-FEIS best meets this landowner objective, as it is the alternative that most closely maintains the current management trajectory. I find that Alternative D-FEIS achieves maintenance of a safe, healthful, productive, and aesthetically and culturally pleasing Bighorn NF better than the other alternatives because it provides the best mix of resource utilization and active management, along with the safeguards provided by standards and guidelines for maintaining water quality, scenery, and wildlife habitat, just to name a few.

C. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences

This goal was particularly determinative in my finding of D-FEIS as the environmentally preferred alternative. The beneficial uses that are most varied between alternatives and that I considered in this finding are wood fiber production and a reasonable balance between motorized and non-motorized recreation opportunities. Alternative D-FEIS achieves a higher level of reasonable, sustainable beneficial uses than alternatives B and C. D-FEIS achieves the goals of maintaining the environment, health and safety, and desirable consequences as well as the other alternatives because of the watershed, wildlife, scenery and other standards and guidelines. In addition, careful allocation of the suited timber base and the areas for motorized recreation to areas with suitable soils, topography and other environmental conditions in D-FEIS helps assure the entirety of this goal is achieved.

D. Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment, which supports diversity and variety of individual choice

Part of preserving our historic and cultural national heritage is recognizing that humans *are* a natural aspect of our national heritage – humans have utilized the physical and cultural resources offered by the Big Horn Mountains for thousands of years. Recognizing that, I find that the best way to preserve that heritage, and the environment that supports diversity and variety of choice, is to manage for a National Forest that provides a balance between the physical resource use and the appropriate protection of cultural and historic resources. Based upon public and steering committee input; tribal consultation; and, the effects of each alternative displayed in the Final EIS, I find that alternative D-FEIS meets this goal better than the other alternatives.

E. Achieve a balance between population and resource use, which will permit high standards of living and a wide sharing of life's amenities

The public demands a variety of products and uses that can be provided by their National Forests. The Revised Forest Plan alternative analysis explores use of the Forest to support the people's lifestyles and reservation to maintain the environment. Our challenge is in defining the balance sought in this goal, and I find that D-FEIS achieves that balance. D-FEIS provides more resource use than alternatives B and C, while providing higher probability of sustained output over time than do alternatives A and E.

F. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

The 'quality' of renewable resources must be defined by the application of public objectives for the resources. The Bighorn planning process has focused on discerning the public objectives, in terms of types of resource uses to manage for, and in specific locations on the forest to emphasize different resources. In parts of the Forest where the public has defined non-motorized recreation, late successional forest habitat, and minimal human-caused disturbance among the objectives, a high quality forest has a variety of tree sizes, numerous dead and dying trees, and few roads. In other parts of the Forest where the public has defined wood fiber production among the objectives, a high quality forest is characterized by generally younger, more vigorous trees, a 'managed appearance', and more roads. I find that alternative D-FEIS better incorporates public objectives in defining high quality resources on the Bighorn National Forest than do the other alternatives.

IX. Findings Required by Other Laws

I have considered the statutes governing management of the Bighorn National Forest, and I find that this decision represents the appropriate approach to meeting the current statutory duties of the Forest Service. Some of the most important are discussed in this section.

A. Clean Air Standards

As discussed in Chapter 3 of the FEIS, Air Resources, all lands managed by the Forest are currently in attainment with the National Ambient Air Quality Standards. Compliance with air quality statutes is directed in the Revised Plan, Chapter 1, Air Standard 1. The Forest has a long standing monitoring program to assess the status of air quality, including the Wilderness lake water sampling and the visibility monitoring station on Hunter Mesa.

B. Clean Water Act

The Revised Plan contains direction to ensure all projects comply with the requirements of the Clean Water Act. This direction is found in the Revised Plan, Chapter 1, Objective 1a, and the standards and guidelines. An aquatic ecosystem assessment was completed by Winters, et al (2004) to show the current condition of streams and watersheds on the Forest. This information is found in the FEIS, Chapter 3, Aquatic Resources and in the project record.

The Rocky Mountain Region Watershed Conservation Practices Handbook, released on December 26, 1996 (amended on December 18, 2001, R2 amendment number 2509.25-2001-1), provides direction for protection of soil, aquatic and riparian systems. Implementation of the

Revised Plan is expected to contribute to protecting or restoring the physical, chemical and biological integrity of water of the United States in accordance with the Act.

C. National Historic Preservation Act

In accordance with a Memorandum of Understanding with the Advisory Council on Historic Preservation, Forest Plans are not undertakings under the National Historic Preservation Act. Consultation pursuant to Section 106 of the Act is not required at the Forest Plan level. As discussed in the Heritage Resource section of Chapter 3 of the FEIS, activities in the Revised Plan will be in compliance with the Act. Conformance with the Act is directed in the Revised Plan in Chapter 1, Social, Heritage Resources. Additional direction is found in FSM 2360.

D. Endangered Species Act (ESA)

The Revised Plan and FEIS address the potential effects of forestwide programmatic direction rather than site-specific projects. Projects developed under the direction of the Revised Plan require additional NEPA analysis that addresses effects to federally listed species. All projects will comply with the ESA. A Biological Assessment, FEIS Appendix F, was prepared to evaluate the potential effects of the Revised Forest Plan on federally listed species and their habitats. In their letter of August 2, 2005, the U.S. Fish and Wildlife Service (USFWS) concurred with the determinations of effects to species analyzed in the Biological Assessment. The Plan was found to “not likely adversely affect” the bald eagle, Canada lynx, and gray wolf, and “no effect” was found on the pallid sturgeon and Ute’s ladies’-tresses. The USFWS also concurred with the management direction set forth in the Revised Plan for these listed species as being adequate to provide protection for the species and in helping to further recovery goals.

E. Healthy Forests Restoration Act

On December 3, 2003 the Healthy Forests Restoration Act (HFRA) was signed into law. The Revised Plan was updated to comply with, and achieve the objectives of, HFRA, in accordance with Section 102 (e)(3)(B) of the Act. Objective 1c, Strategy 8 prioritizes vegetative fuel treatment areas by hazard and communities recognized in HFRA. The standards and guidelines were developed in order to achieve the HFRA objectives.

F. National Forest Management Act Regulations at 36 CFR 219.12(j)

Economic analysis was performed on each alternative. The analysis showed that Alternative D-FEIS does not have the highest present net value (PNV). As explained in the FEIS, PNV is just one item to consider in determining the net public benefits. The reduction of PNV in any alternative as compared to the most financially or economically efficient solution is the economic trade-off, or opportunity cost, of achieving that alternative. The only benefits that were assigned monetary values in the PNV calculations were recreation, livestock grazing and timber. Some outcomes and effects, including biological diversity, visual amenities, existence values, and some social impacts have no monetary values or costs that have been established by USDA or the Forest Service. I find that alternative D-FEIS provides the highest net public benefit despite the fact that alternatives D-DEIS and E have higher PNVs because the additional non-priced outcomes and resource conditions achieved in the areas of biological diversity and scenery, among others, are worth the additional net cost to the public.

G. Other Laws and Executive Orders

I find that the selected alternative, D-FEIS, is in compliance with the following laws and executive orders, as documented in the Final EIS:

- Executive Order for Environmental Justice
- National Forest Management Act of 1976, as amended
- Mineral Leasing Act as amended
- Federal Onshore Oil and Gas Leasing Reform Act
- Mining and Minerals Policy Act
- Executive Order for Protection of Migratory Birds

X. Implementation

Implementation of the approved plan may occur 30 calendar days after the Notice of Availability of the Final EIS is published in the Federal Register (36 CFR 219.10(c)(1)).

The following site specific planning projects have been substantially developed using, and the decisions will be made under, the 1985 Forest Plan: Hudson Falls, Kinky White, Gravel Pit - Pussyfoot, North High Park, and Piney AMP. Revised Plan direction will apply to all other projects that have decisions made on or after the implementation date described above.

In developing the Revised Plan, implementing pre-existing decisions and the associated effects of that implementation were considered part of the baseline against which the alternatives were evaluated. Because we considered these earlier decisions in our effects analysis, their implementation is not in conflict with the Revised Plan.

Under the National Forest Management Act (NFMA), “permits, contracts, and other instruments for the use and occupancy” of National Forest System lands are required to be “consistent” with the current Land and Resource Management Plan. However, this requirement is not absolute. In the plan revision context, NFMA specifically qualifies the requirement in three ways: 1) these documents must be revised only “when necessary,” 2) these documents must be revised “as soon as practicable,” and 3) any revisions are “subject to valid existing rights”.

Use and occupancy agreements, which might require modification of pre-existing authorization, include those for timber harvesting and livestock grazing.

I have decided not to modify any existing timber sale contracts solely due to the Revised Plan. These contracts will be executed according to their terms and these effects have been disclosed in the FEIS. Existing timber contracts will, in most cases, be completed within three years. The decision is left to the Forest Supervisor to determine whether to modify decisions authorizing timber sales not currently under contract.

Other use and occupancy agreements are for a substantially longer term than timber contracts. For example, grazing permits are generally issued for a ten-year term. My discretionary decision is to require grazing permits to comply with the Revised Plan’s standards and guidelines. The case law is clear that grazing permits are privileges rather than rights, and they are subject to modification by their terms and under the grazing regulations. The Forest is presently under a separate statutory mandate (Rescission Act, Public Law 104-19, Section 504; July 27, 1995) to

schedule and complete NEPA analysis for all grazing allotments. The Forest has scheduled the required analyses, and I find that applying the Revised Plan's standards and guidelines through this process will meet the "as soon as practicable" provision.

Other classes of "use and occupancy" agreements will be reviewed to determine whether or when the Forest Supervisor should exercise his/her discretion to bring them into compliance with the Revised Plan. I find that the statutory criteria of "as soon as practicable" and excepting "valid existing rights" useful in exercising that discretion.

The Forest will undertake many management activities to implement the Revised Plan. Many of these activities are site-specific and require analysis and disclosure of effects under NEPA. These site-specific analyses will be done during implementation of the Revised Plan.

Site-specific analysis of proposed activities will determine what can be accomplished. The outcomes specified in the Revised Plan are estimates and projections based on available information, inventory data, and assumptions. More information on the difference between programmatic and site-specific projects can be found in the planning record that is incorporated into this ROD by reference.

The 1982 Planning regulations provided guidance for implementation of the National Forest Management Act when the Forest Plan was promulgated in 1985. The 1982 regulations have now been superseded by regulations published in the Federal Register on January 5, 2005 (2005 Planning Rule). The Forest has elected to operate under the provisions of the former 1982 NFMA planning rule as modified by 36 CFR 219.14 (f). Provision 36 CFR 219.14 (f) (the new 2005 Planning Rule) describes how the new rule applies to Forest Plan MIS requirements.

Additionally, the 2005 Planning Rule modified the MIS concept during transition to the new rule stating:

- (f) Management indicator species. For units with plans developed, amended, or revised using the provisions of the planning rule in effect prior to November 9, 2000 [the 1982 Rule], the Responsible Official may comply with any obligations relating to management indicator species by considering data and analysis relating to habitat unless the plan specifically requires population monitoring or population surveys for the species. Site-specific monitoring or surveying of a proposed project or activity area is not required, but may be conducted at the discretion of the Responsible Official. 36 CFR 219.14(f).

This Forest Plan is governed by the MIS concept of the 2005 rule (36 CFR 219.14(f)). Under the 2005 Planning Rule, there is no obligation to conduct site-specific monitoring or surveying of a proposed project at the project level. Further, the revised forest plan monitoring requirements for MIS species may be satisfied by considering data and analysis relating to habitat.

XI. Potential Amendments or Adjustments to the Revised Plan

The Revised Plan can be amended or revised to adjust to changing circumstances, 36 CFR 219.10. The amendment process provides the flexibility to adapt the decisions made today to the realities of tomorrow.

If monitoring indicates that something in the plan is not working as anticipated, we may consider a specific amendment to adapt and improve the plan. These amendments may be "one time" or

permanent amendments, depending on the circumstances. The Forest Service will involve interested people and organizations in all amendment processes.

The Northern Rockies Lynx Amendment process is currently underway, which includes the Bighorn NF in its analysis. The Northern Rockies Lynx Amendment could result in changes to the Lynx direction contained in the Revised Plan.

XII. Appeal Opportunities

This decision is subject to administrative review pursuant to 36 CFR 217. Any appeal of this decision must be fully consistent with 36 CFR 217.9, and be filed in duplicate with the Chief within 90 days of the published legal notice. Appeals should be sent to the following address:

Regular Mail:

**USDA Forest Service
Attn: NFS-EMC Staff (Appeals)
Stop Code 1104
1400 Independence Avenue, SW
Washington, D.C. 20250-1104**

FedEx, UPS, Courier:

**USDA Forest Service
Attn: NFS-EMC Staff (Appeals)
Yates Bldg., 3CEN
201 14th Street, SW
Washington, DC 20024**

Any notice of appeal must include at a minimum:

- A statement identifying the document as a Notice of Appeal pursuant to 36 CFR Part 217.
- The name, address, and telephone number of the applicant.
- Identification of the document in which the decision is contained, by title and subject, date of the decision, and name and title of the Deciding Officer.
- Identification of the specific portion of the decision to which the appeal is being made.
- The reason(s) for appeal, including issues of fact, law, regulation, or policy.
- Identification of the specific change(s) in the decision that the appellant seeks.

For questions concerning the appeal process, contact:

**USDA Forest Service
Attn: NFS-EMC Staff (Appeals)
Stop Code 1104
1400 Independence Avenue, SW
Washington, D.C. 20250-1104
(202) 205-1066**

For questions concerning the Revised Bighorn National Forest Plan, contact:

**William T. Bass, Forest Supervisor
Bighorn National Forest
2013 Eastside 2nd Street
Sheridan, WY 82801
(307) 674-2600**

XIII. Conclusion

I am pleased to announce this decision and bring this phase of the Bighorn NF plan revision to completion. Over the next few years we have the opportunity to work together to achieve the goals and objectives of the Revised Plan. The strengths of the Revised Bighorn Land and Resource Management Plan are:

- Guidance that is informed by the best available science to insure that the biological and physical resources of the Bighorn NF are sustained for today and tomorrow.
- Recognition of the link between the Bighorn NF and the citizens of the United States, especially those that live in the communities in the shadow of the ‘mountain’.
- An opportunity for the revision steering committee – the State and local governments – to continue to be a partner in the implementation, and improvements over time, of the Revised Plan.

The Revised Plan is our strategic plan for ensuring the long-term health of the land. Adaptive management will be the basis of implementation. We will carefully monitor our activities, the condition of the land, the goods and services produced, and the effectiveness of the resource protection measures included in the Revised Plan to ensure a healthy forest for future generations.

/s/ Rick D. Cables

RICK D. CABLES

REGIONAL FORESTER

9/30/2005

Date